

REMARKS

Claims 1 to 26 are being cancelled

New claims 27 to 55 are being introduced.

The Office Action refers to Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/5/09 has been entered. Claims 1-3, 5-13, 15-18,23-26 are pending in the application.

Applicant appreciates the withdrawal of the Final Rejection in the last Office Action.

The Office Action refers to Claim Objections.

2. Claim 2 stands objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 fails to further limit the subject matter of claim 1.

The present amendment cancels claim 2.

The Office Action refers to Claim Rejections - 35 USC § 102.

3. Claims 1,2, 8-9, 12,13 are rejected under 35 U.S.C. 102(b) as being anticipated by Arita et al (5,504,502).

The present amendment cancels claims 1, 2, 8-9, 12, 13. The Applicant has drafted a new set of claims 27 to 55 and believes that these new claims will define the present invention over the reference Arita et al.. These new claims are intended to present fresh language and to patentably define over the Arita et al. reference.

As to claims 1,2, Figs. 1,16 of Arita discloses a computer input pointing device comprising a casing(13,19), an upper movable steering element (10,11), a steering element's movement detector (14,14', 18), the steering element (10,11) is connected to the casing by a connection (see Fig. 1, all elements between the steering element 10 and the housing 13), the center of the spherical surface (Fig. 3 A, 10a) defined by the movement of the steering element in relation to the casing is situated above the steering element as claimed (also see Fig. 16 for example, the center of the spherical surface is situated above the steering element 11).

Claim 27 newly presented requires that the control component (2) is forced to move within a segment of a sphere (3). Applicants are of the opinion that new claims 27 to 52 patentably define the present invention over the Arita et al. reference.

Applicant is providing Exhibit 1 to Exhibit 17 with this amendment to show details of the present invention, wherein additional drawing figures with the invention structures are shown.

Applicant wishes to point out in the following differences distinguishing applicant's claims from the teaching of the references Arita et al. and Leung. The present invention device is called in the following "Slidepad". Mechanical pointing devices - "Arita" and "Leung" - move in such a manner that they define the sphere of a **convex meniscus** with their movements. This "**Difference 1**" can be seen in the figures below:

Fig. 7B

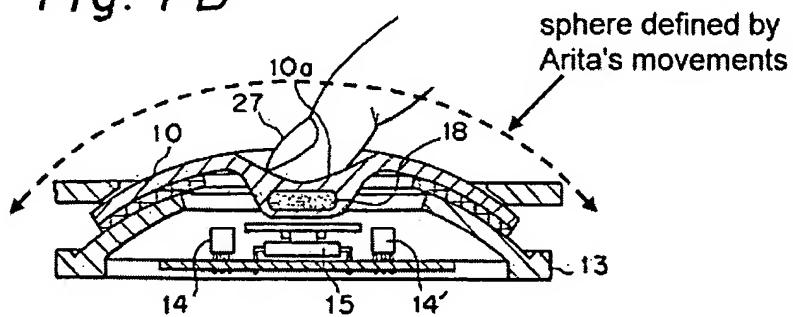
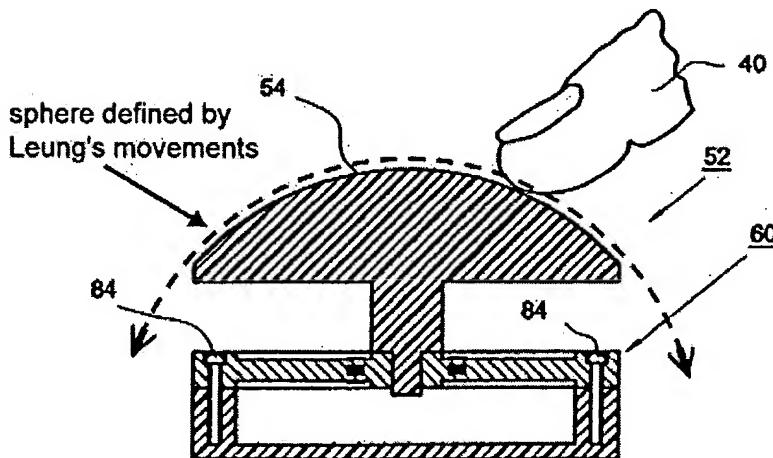
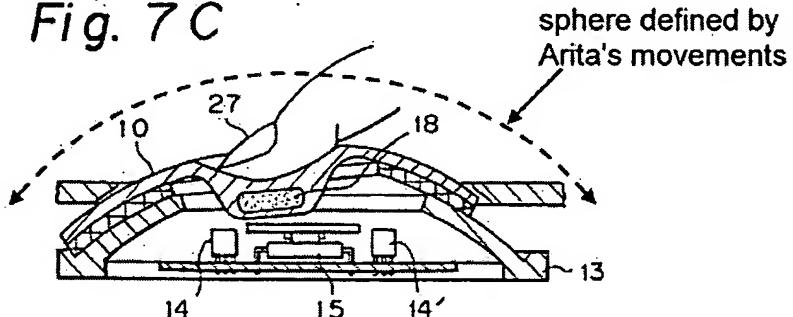
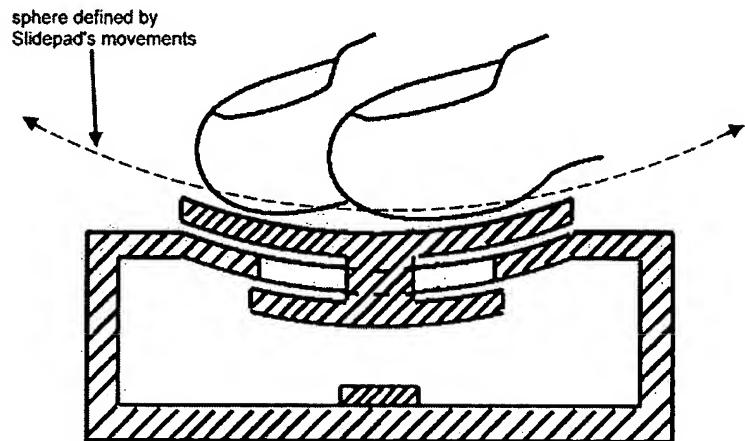


Fig. 7C

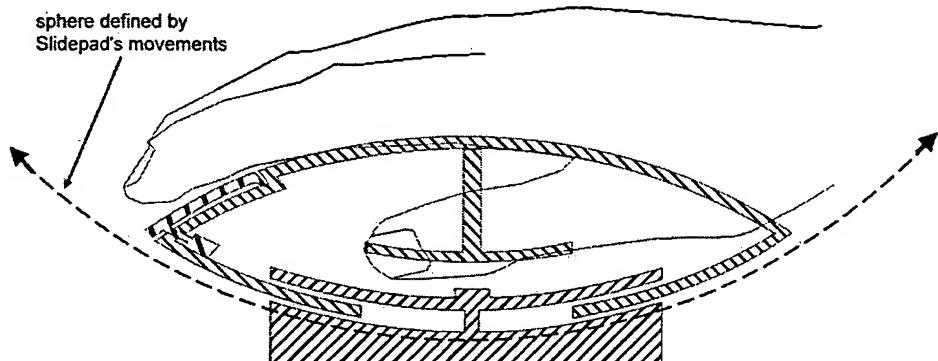


The invention pointing device "Slidepad" moves in such a manner that it defines the sphere of a **concave meniscus** with its movements. This can be seen in figures of two versions of the "Slidepad" below:

"Slidepad", version for notebooks:



"Slidepad", version for PCs:

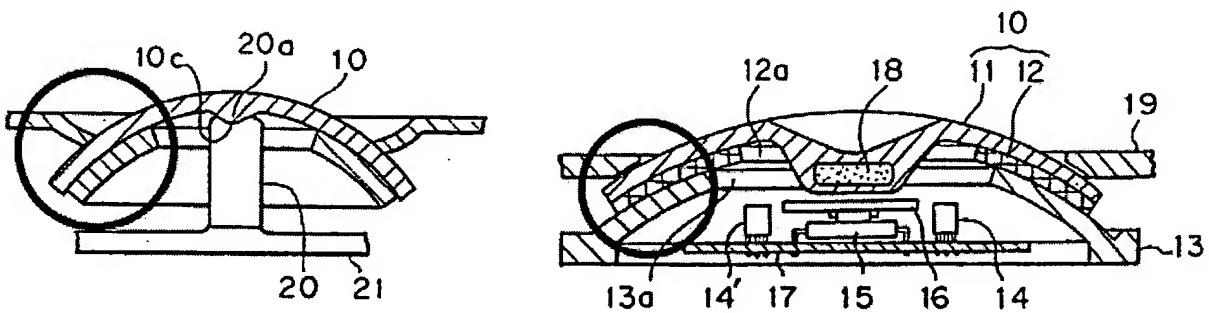


Difference 1: the moving element in the "Arita" reference moves in reverse compared to the one in the "Slidepad". The moving element in the "Arita" reference defines the sphere of a **convex meniscus** with its movement, while the moving element in the "Slidepad" defines the sphere of a **concave meniscus** with its movement.

“Difference 2”

Both “Arita” and the present invention called “Slidepad” consist of two main elements: a stationary base and an element moved by the operator’s fingers or palm. Both elements are connected and inseparable.

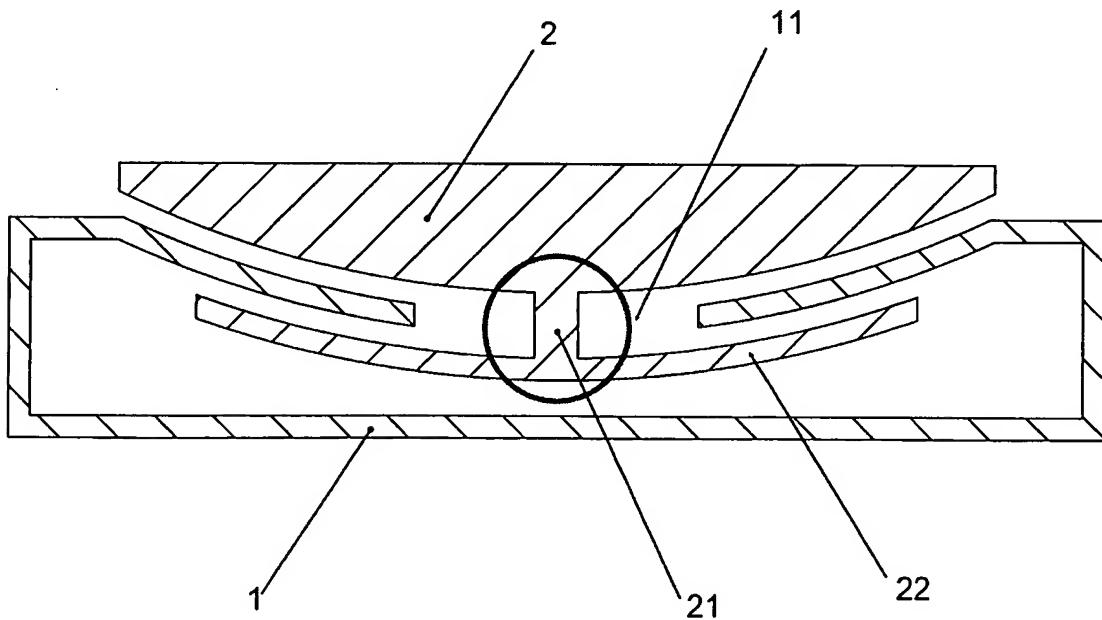
The connection of the base and moving element in “Arita” is presented below:



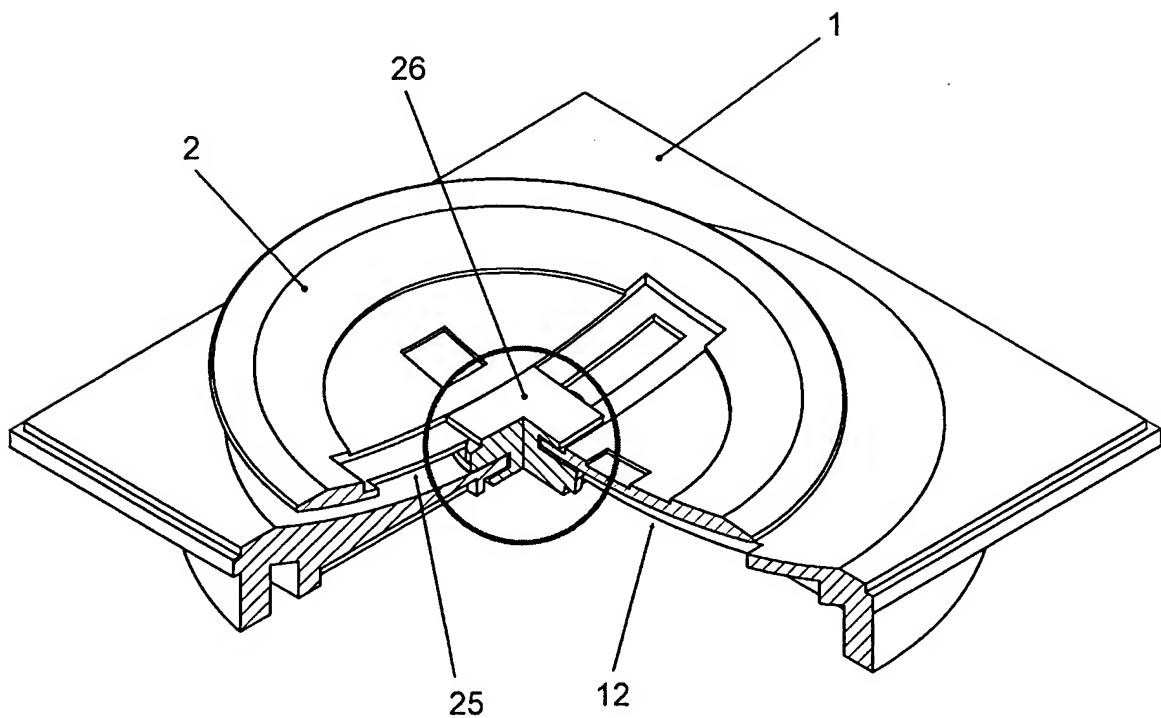
In the “Arita” reference, the possibility of the moving element becoming loose is **directly prevented by the base**.

The connection of the base and the control element in several versions of the “Slidepad” is presented below:

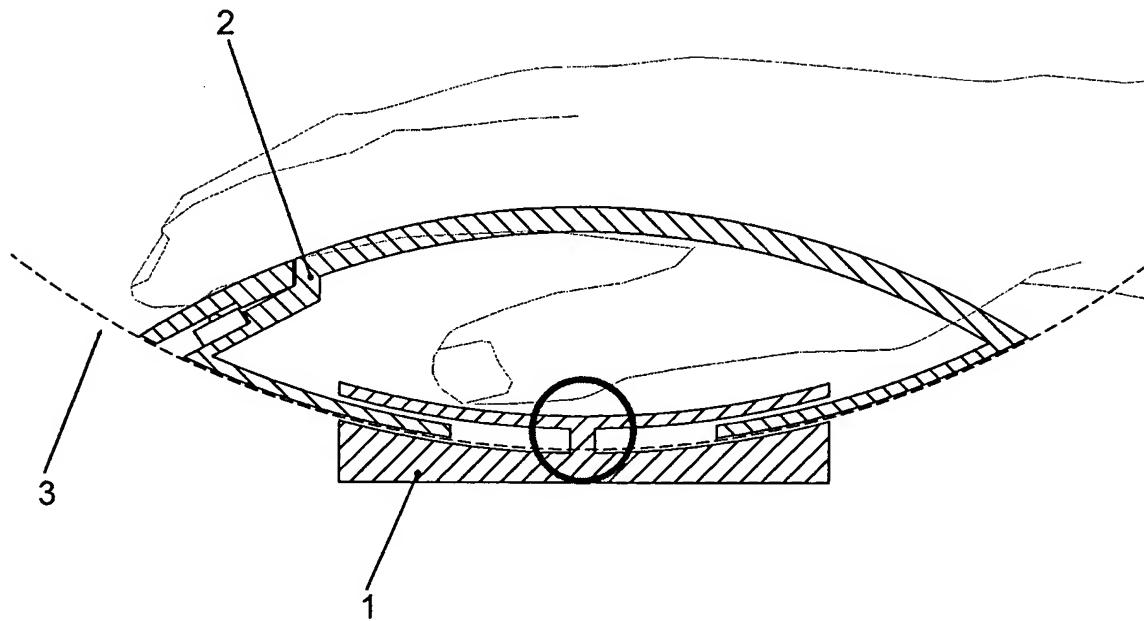
The first version of the present invention for notebooks:



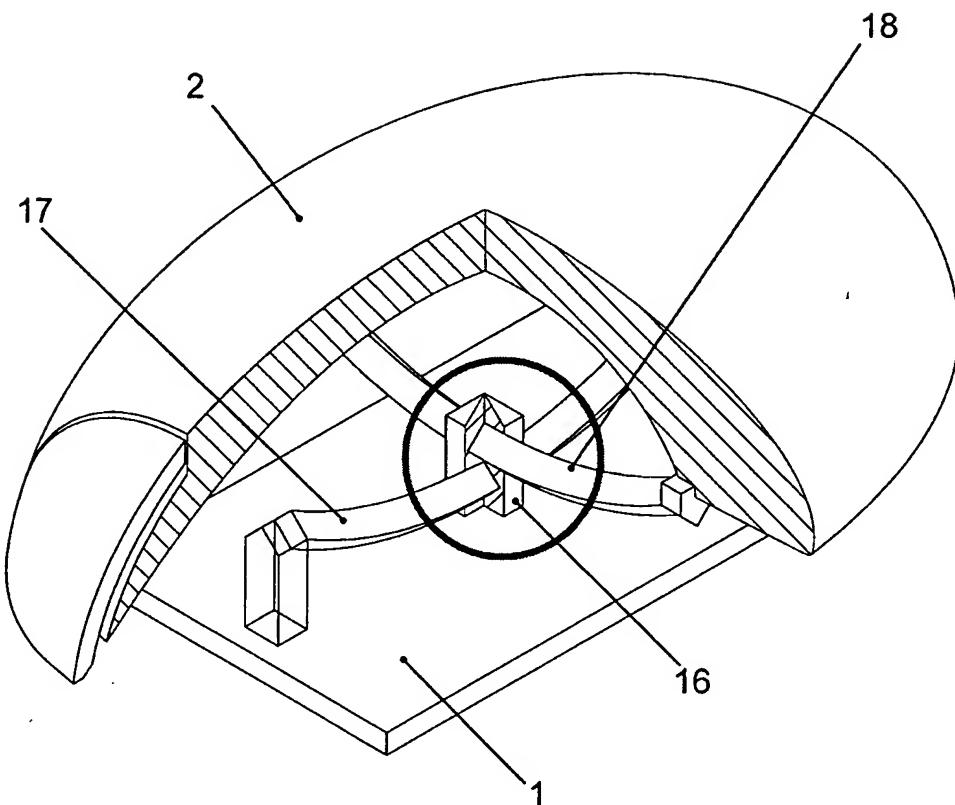
The second version of the present invention for notebooks:



The first version of the present invention for PCs:



The second version of the present invention for PCs:



In the present invention "Slidepad", the possibility of disconnection of the moving element and the base is prevented by the connecting element.

"Difference 2": in the "Arita" reference the moving element and base are directly connected. In the present invention "Slidepad", the moving element and base are not directly connected – a connecting element is used.

As to claims 8 and 9, Fig. 1 of Arita teaches the steering element (10) rests freely on the casing (13), and the steering element is able to relocate only over the spherical surface defined by the movement of the steering element in relation to the connection.

As to claims 12, 13, Fig. 3 A of Arita shows the steering element is provided with a dome part (ergonomic shape) for user's hand.

Claims 8, 9, 12, 13 are being cancelled. The applicant believes that the new claims 27 to 52 are more suitable to define the present invention.

The Office Action refers to Claim Rejections - 35 USC§ 103

5. Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Arita.

As to claim 3, Fig. 16 of Arita shows the connection of convex side (under side) of the steering element to the casing (13) is attached a frame having a surface. Arita differs from claim in that the surface is not of spherical shape. However, it would have been obvious to modify the frame to be a spherical shape since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

Claim 3 is being cancelled now. Applicant believes that the new claims 27 to 52 are much more advantageous.

6. Claims 5-6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al in view of Leung (6,388,655B1).

Arita et al is discussed above. Leung is cited to show that the concept of utilizing ball bearing (236, Figs 19,22) for facilitating movement of a moveable steering element(182) of an input pointing device(180) is old. Thus, it would have been obvious to one of ordinary skill in the art to modify the system of Arita et al with the noted teaching of Leung such that to provide ball bearings between the moveable steering element(10) and the bearing(13) because it would facilitate the movement between the two elements almost without any friction and secondly because both references are related to moveable cursor input device.

The present amendment cancels claims 5 and 6. The applicant believes that the new claims 27 to 55 define the present invention more concisely.

7. Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al in view of Miyoshi (6,667,733).

Arita et al is discussed above. Artia does not disclose the detail of the connection as claimed. Miyoshi is cited to show that the concept of utilizing a moveable steering element (30, Fig. 4) having an upper part (31), a protective lower part (70) and a connecting part (32) for connecting the upper and the lower parts together is old. Thus, it would have been obvious to one of ordinary skill in the art to modify the system of Arita et al with the above noted teachings of Miyoshi such that the moveable steering element (slider 10) of Arita includes an upper and lower parts connected together so that to prevent the slider from falling through the hole (12a, 13a) because both references are related to mechanical structure of a slider input device.

Arita as modified by Miyoshi differ from the claim in that the lower side of the upper part not having a convex surface and the upper side of the protective lower part not having a concave surface. However, it would have been obvious to modify the steering element of Arita

as modified by Miyoshi to be shape as claimed since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

The present amendment cancels claim 10. The inventor believes that the language of claims 27 to 55 is more favorable to define the invention over the references applied than the cancelled claims.

8. Claims 15-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arita et al in view of Low et al (2004/0046741A1).

As to claims 15, 16, Arita et al is discussed above. Arita does not disclose the detail of the steering element movement detector. Low et al is cited to show that the concept of utilizing a light emitter and an optical sensor or a micro-camera as a movement detector for a moveable peripheral input device is old (see paragraphs [0024-0025]). Therefor, it would have been obvious to one of ordinary skill in the art modify the system of Arita et al with the above noted teachings of Low et al such that to provide an optical detection system for detecting movement of the slider(10) as opposed to the magnetic detection system(14, 14', 18) because both are alternative equivalent to each other and further because both references are related to movement detection of a moveable peripheral input device.

As to claim 17, Fig. 3 of Arita shows the steering element has a graphic perforations.

The present amendment cancels claims 15 through 17 and introduces new claims 27 to 55, which are believed by the inventor to be more advantageous.

9. Claims 24-26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobachi et al (US 6,326,948).

As to claim 24, Fig. 28 of Kobachi discloses a computer input pointing device comprising: a casing (4) having a central opening; a steering element (1) having an outer spherical cap and an inner spherical cap, and a centered disposed stub element solidly connecting the inner side of the outer spherical cap and the outer side of the inner spherical cap; a movement detector (sensors S) for detecting movement of the steering element (1); and a transmission system connected to the movement detector for transferring movement information to a computer. Kobachi does not disclose the outside surface of the casing is formed concave, an inside surface of the outer spherical cap is formed convex, and an outside surface of the inner spherical cap is formed concave. However, it would have been obvious to modify the pointing device of Kobachi to be shape as claimed since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1976). As to claims 25 and 26, see Fig. 28 of Kobachi.

The present amendment cancels claims 24 to 26. The applicant believes that the new claims 27 to 55 are eminently more suitable to define over the art of record.

The Office Action refers to Allowable Subject Matter.

10. Claims 7,11 and 23 are allowed.

11. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant very much appreciates the finding of allowable subject matter in claims 7, 11, 18, and 23. The present amendment cancels claims 7, 11, 18 and 23. The applicant believes that more suitable claims can be found in the newly submitted claims 27 to 52 than in the cancelled claims.

Reconsideration of all outstanding rejections is respectfully requested.

All claims as presently submitted are deemed to be in form for allowance and an early notice of allowance is earnestly solicited.

Respectfully submitted,

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Reg. No. 28,559; Docket No.: LAC201A7

Rep/am

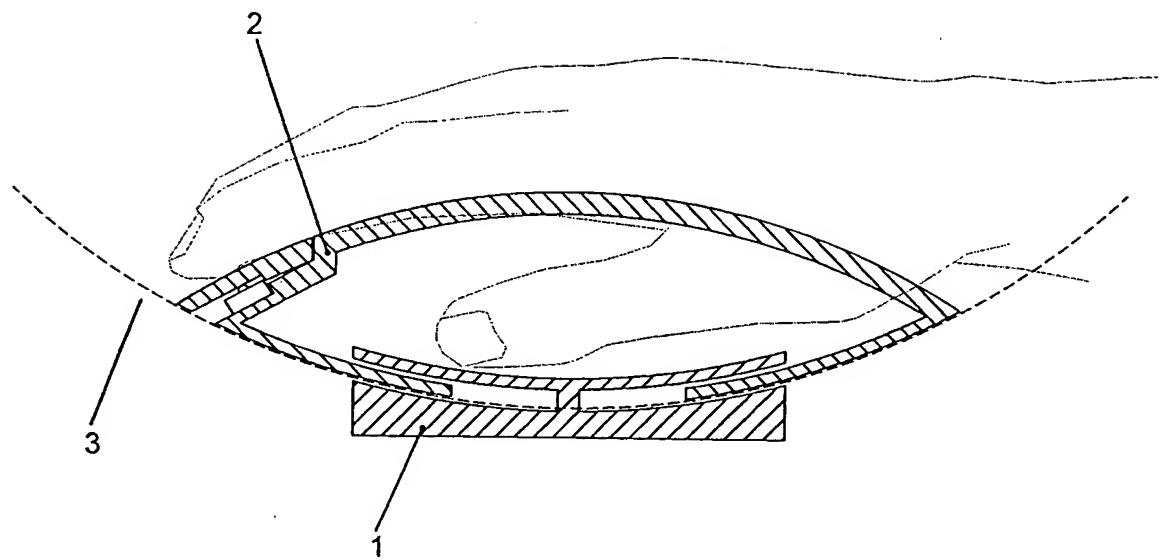


EXHIBIT 1

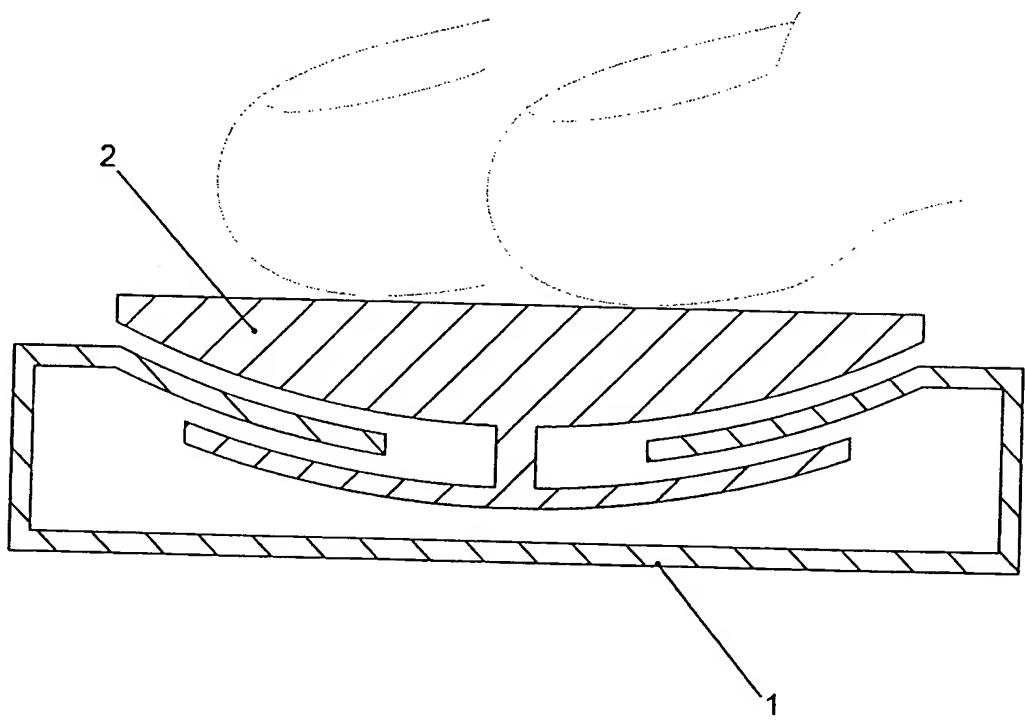


EXHIBIT 2

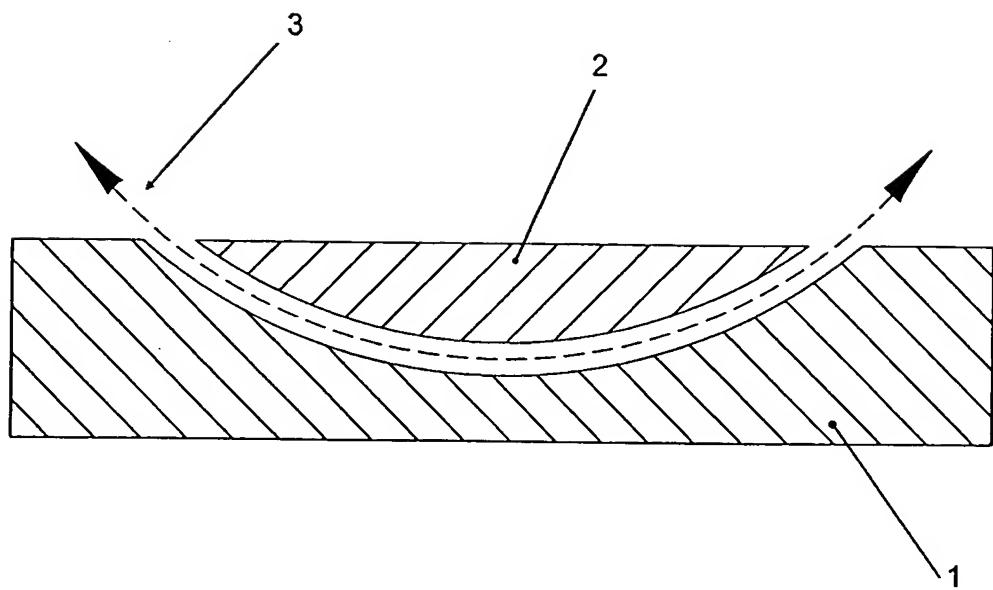


EXHIBIT 3

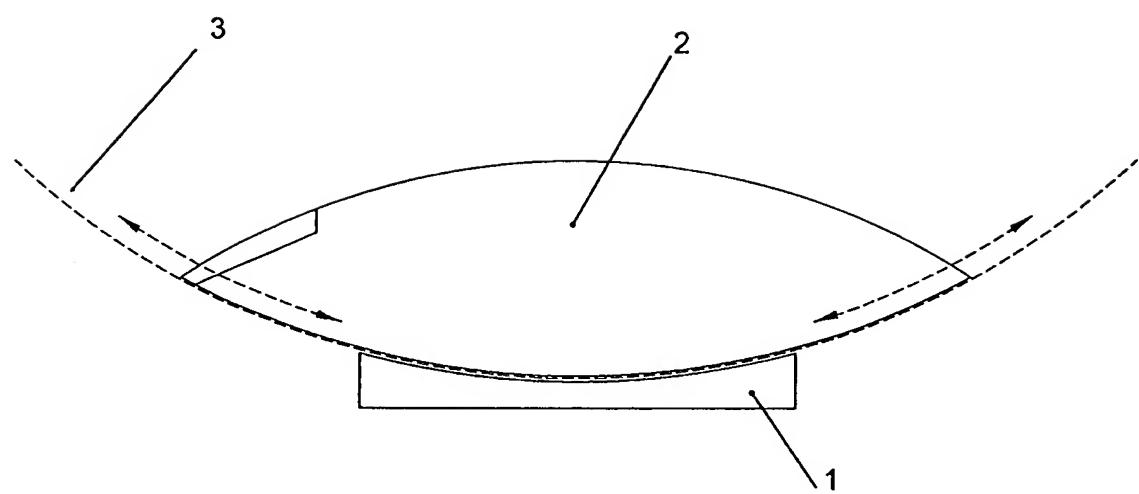


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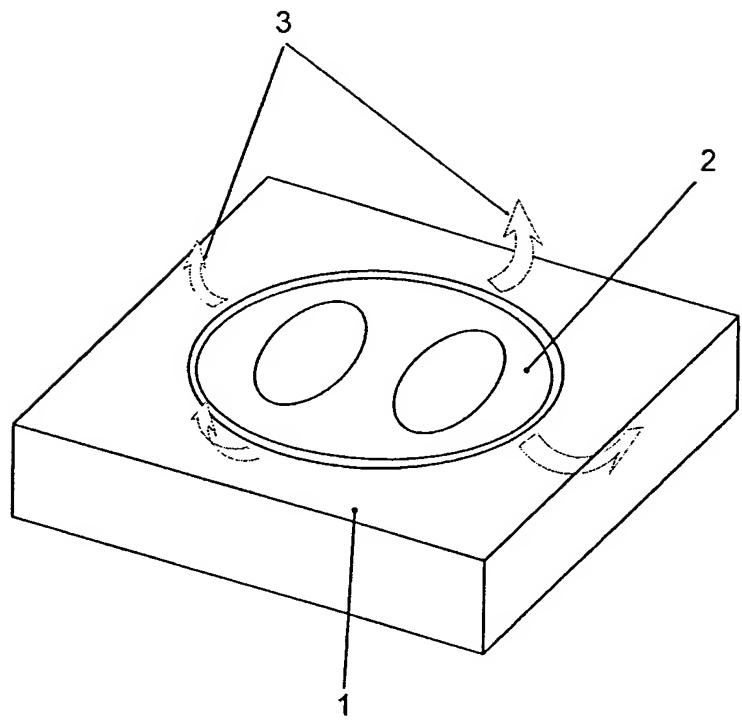


EXHIBIT 5

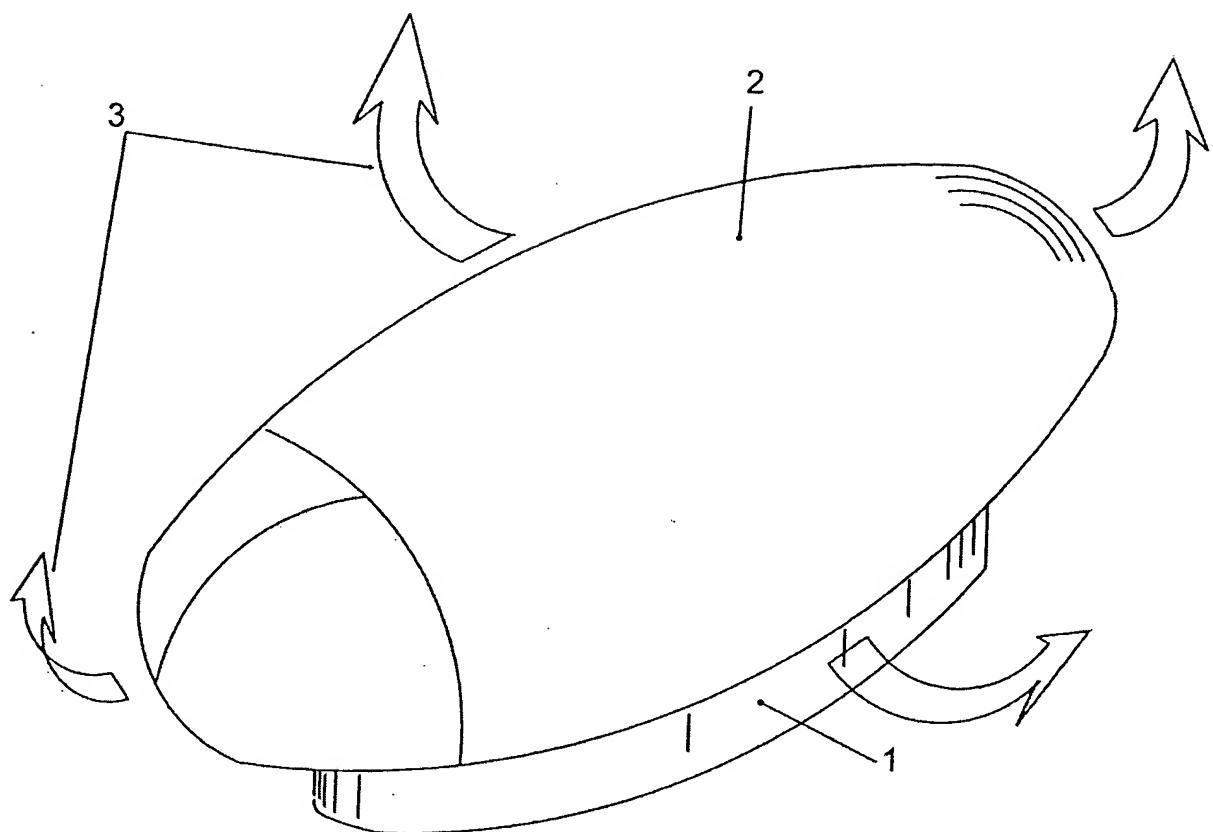


EXHIBIT 6

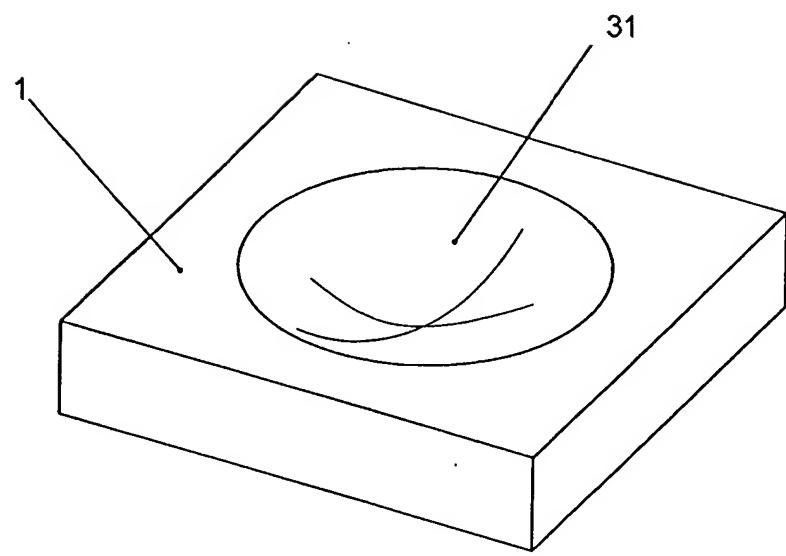


EXHIBIT 7

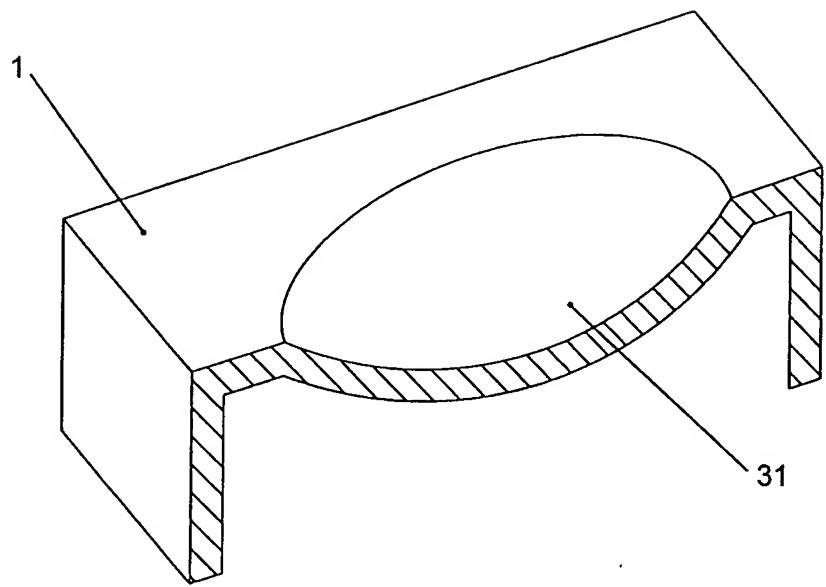


EXHIBIT 8

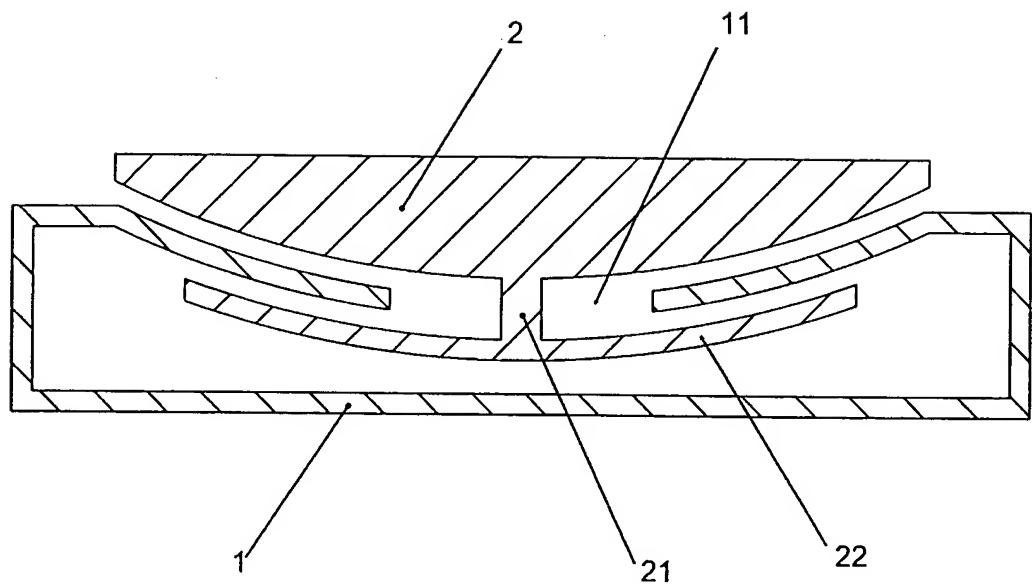


EXHIBIT 9

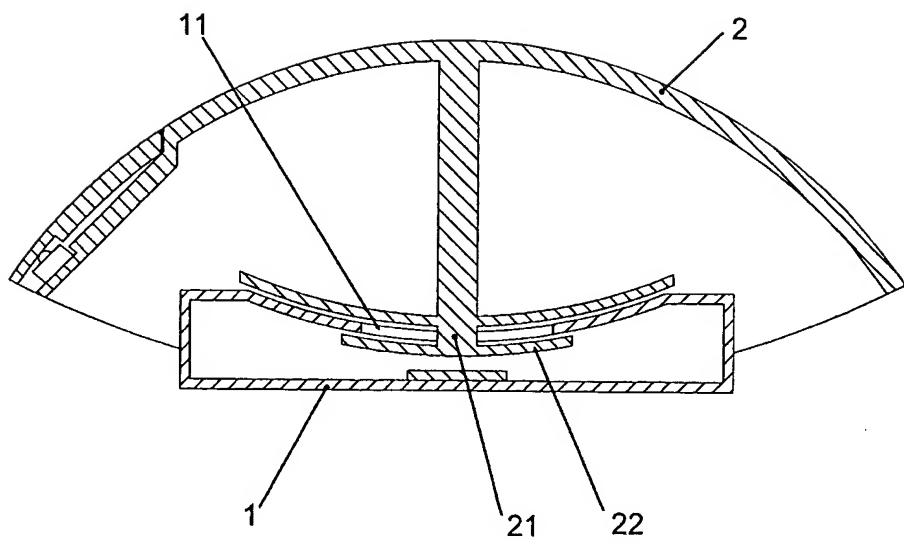


EXHIBIT 10

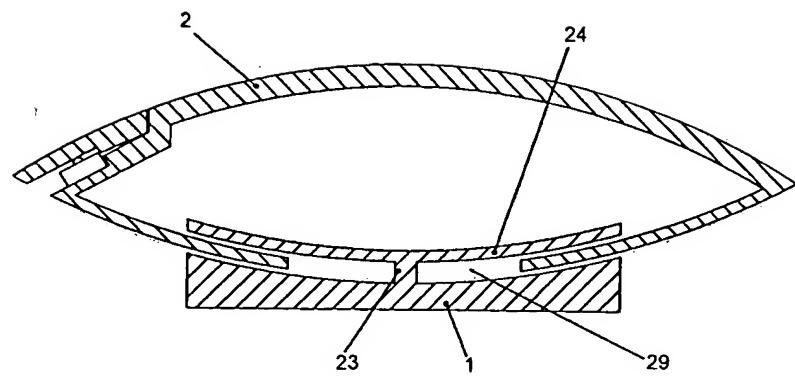


EXHIBIT 11

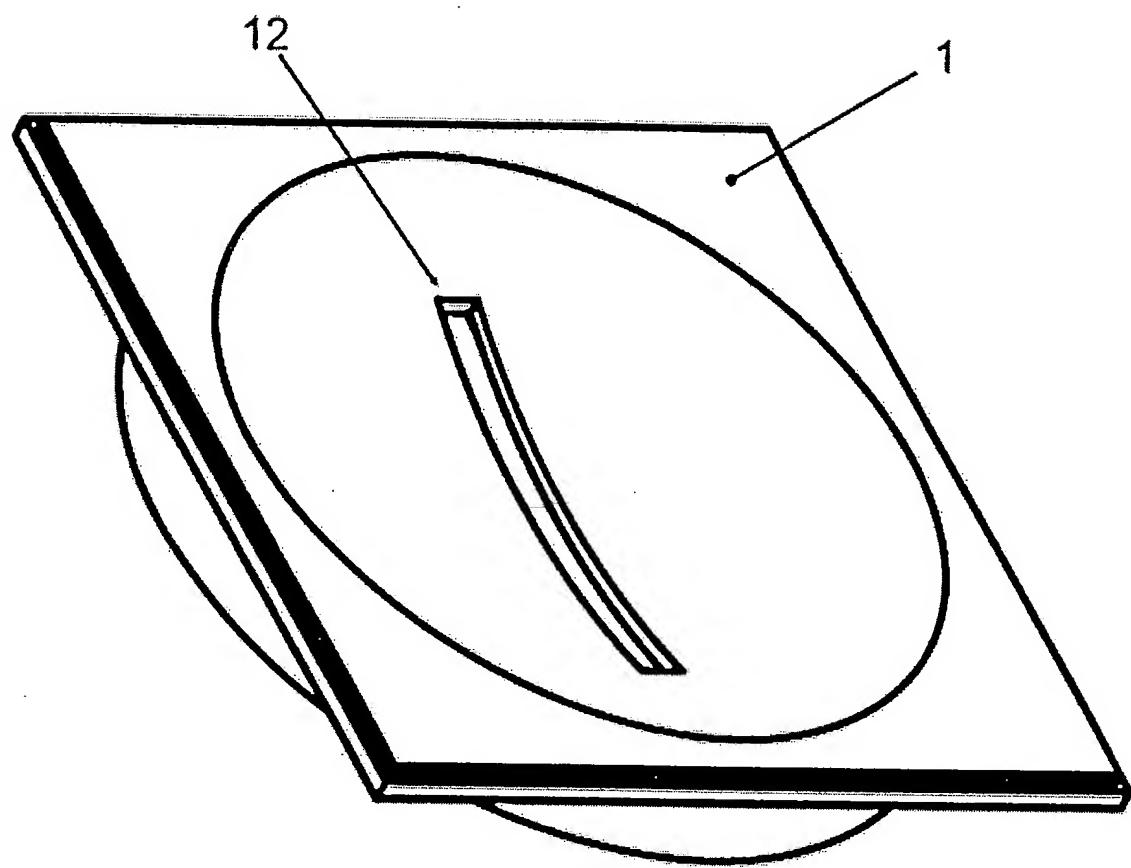


EXHIBIT 12

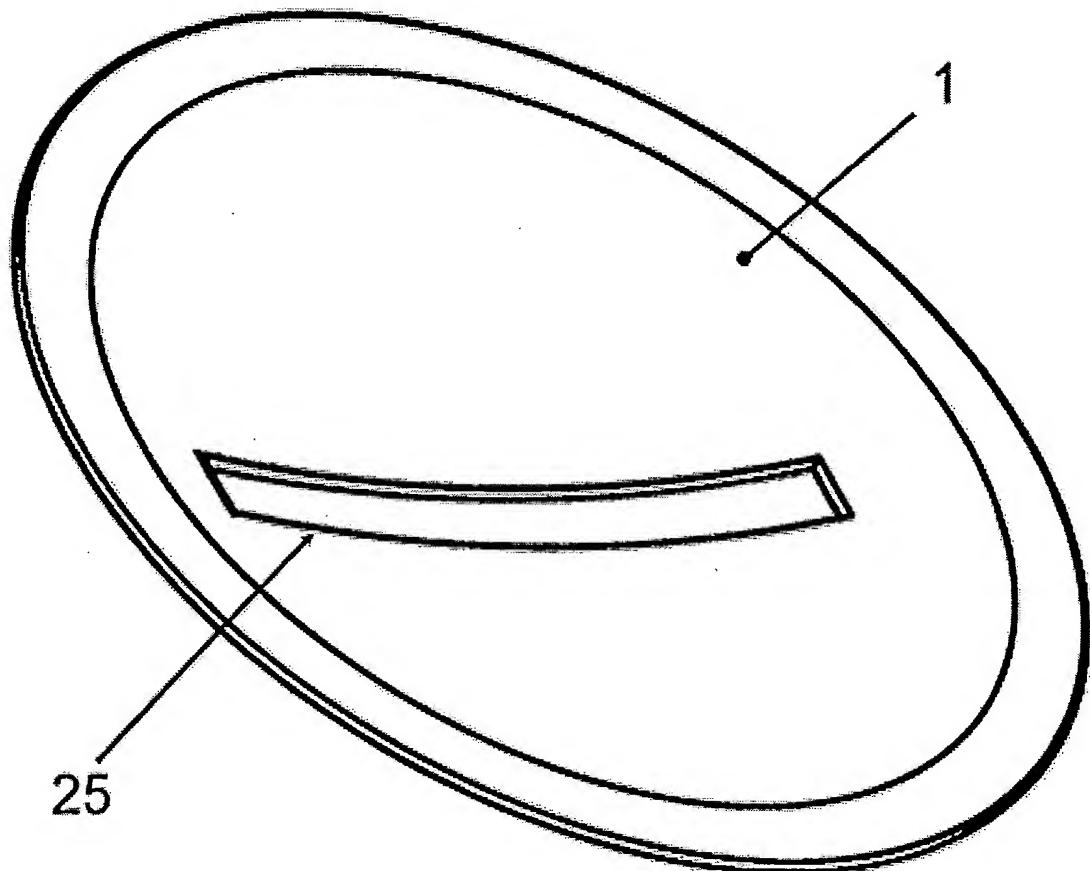


EXHIBIT 13

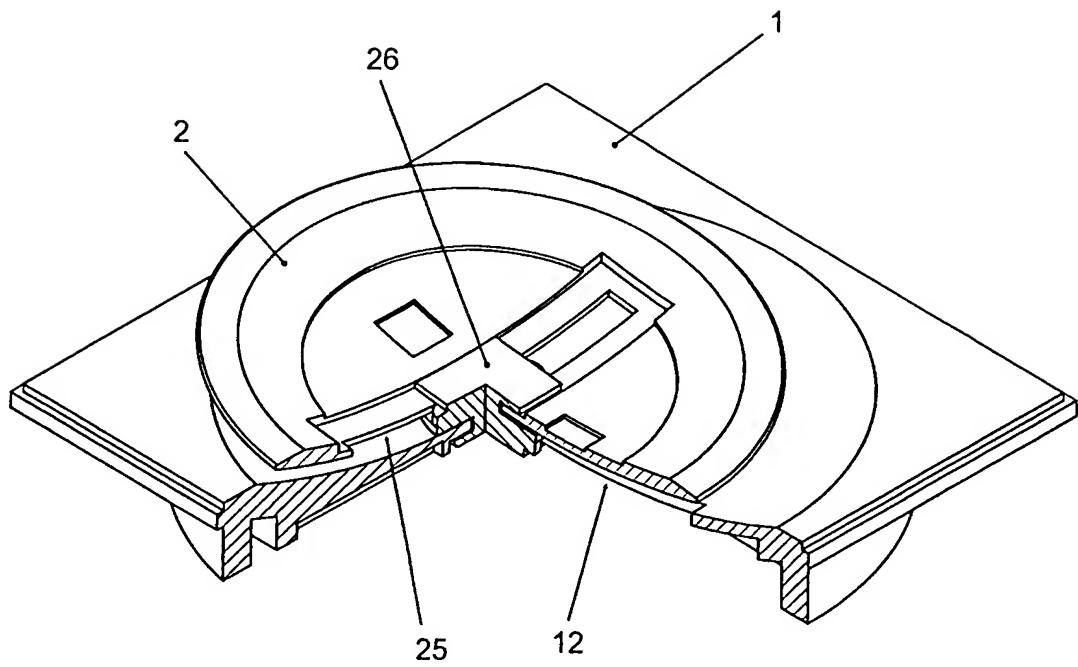


EXHIBIT 14

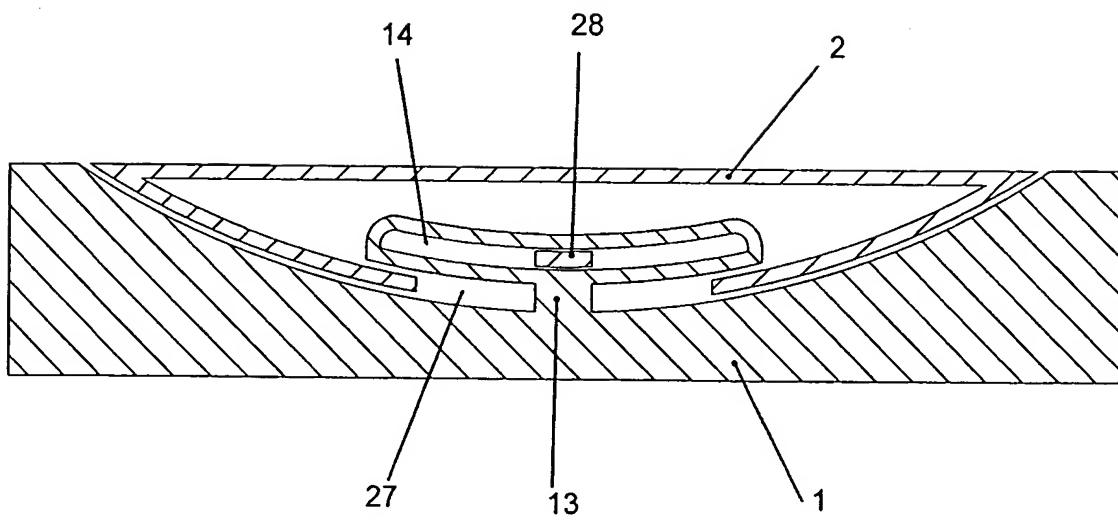


EXHIBIT 15

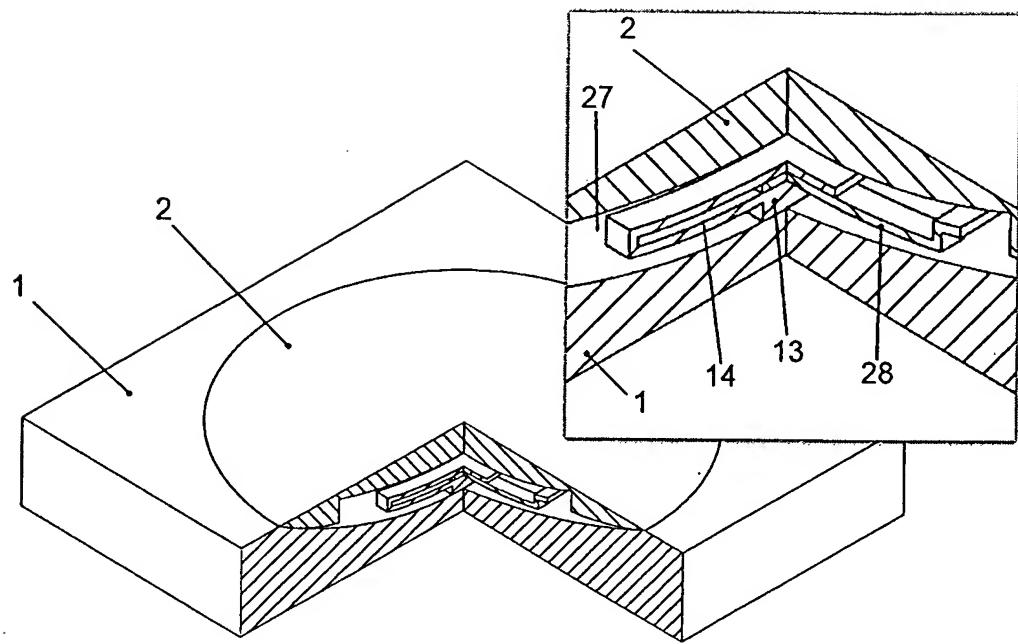


EXHIBIT 16

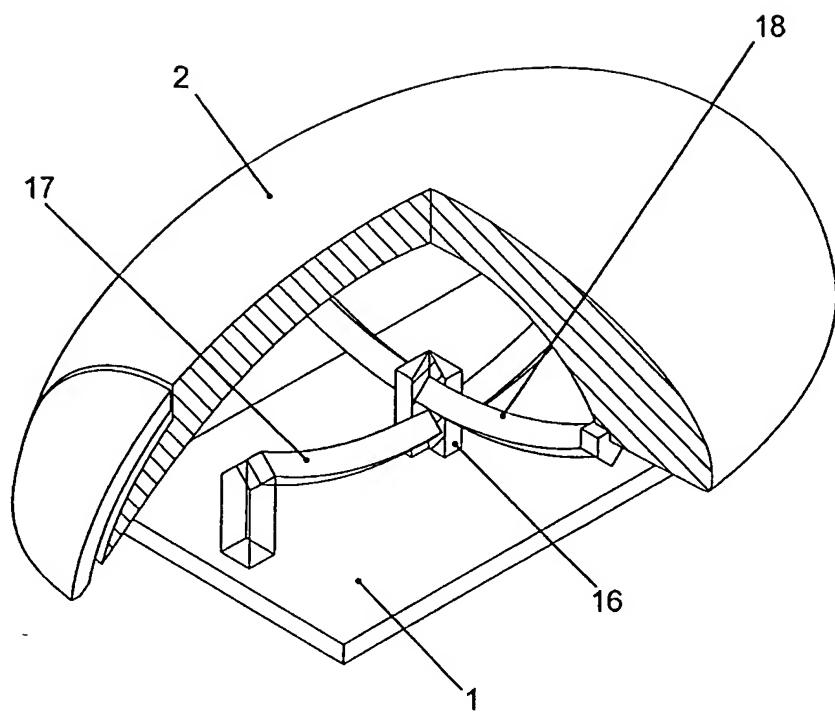


EXHIBIT 17